

## WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

7	THE TABLE TO THE T								
(51) International Patent Classification 7:		(11) International Publication Number: WO 00/11175							
C12N 15/29, 15/62, 15/82, C07K 14/415, 7/08, A01H 5/00	A1	(43) International Publication Date: 2 March 2000 (02.03.00)							
(21) International Application Number: PCT/GB(22) International Filing Date: 17 August 1999 (	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).								
(30) Priority Data: 9818001.1 9826753.7  18 August 1998 (18.08.98) 4 December 1998 (04.12.98)  (71) Applicant (for all designated States except US): 2 LIMITED [GB/GB]; 15 Stanhope Gate, London W (GB).									
(72) Inventors; and (75) Inventors/Applicants (for US only): BROEKAERT, Frans [BE/BE]; (BE). FRANCOIS, Isabelle, Elsa, Augustine [BE/BE]; (BE). DE BOLLE, Miguel, Fr Coleta [BE/BE]; (BE). EVANS, Ian, Jeffrey [G Jealott's Hill Research Station, Bracknell, Berkshin 6ET (GB). RAY, John, Anthony [GB/GB]; Jealo Research Station, Bracknell, Berkshire RG42 6ET  (74) Agents: HUSKISSON, Frank, Mackie et al.; Int Property Department, Zeneca Agrochemicals, P. 3538, Jealott's Hill Research Station, Bracknell, B RG42 6YA (GB).	Published  With international search report.  Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.								
(54) Title: GENETIC METHOD FOR THE EXPRESSION OF POLYPROTEINS IN PLANTS									
Construct #									
3105 SP Dm-AMP1 Dm-AMP1	4	Rs-AFP2							
SNAADEVATPEDVEPG SEQ ID NO 3 internal propeptide of Ib-AMP: SNAADEVATPEDVEPG									
3106 SP Dm-AMP1 Dm-AMP1 Rs-AFP2  KKAEKLAQDKLKAEQL IGKR — KEX2 recognition site  C-terminal propeptide of Dm-AMP1: KKAEKLAQDKLKAEQLAQDKLNAQKLDRDAKKVVPNVEHP  SEQ ID NO 5									
<u> </u>		Rs-AFP2  KEX2  EQLAQDKLNAQKLDRDAKKVVPNVEHP IQKR ← recognition							
C-terminal propeptide of Dm-AMP1: KKAEKLAQDKLKAEQLAQDKLNAQKLDRDAKKVVPNVØHP SEQ ID NO 6 SEQ ID NO 5									
(57) Abstract									

A method of expressing or improving expression levels of one or more proteins in a transgenic plant comprising inserting into the genome of said plant a DNA sequence comprising a promoter region operably linked to two or more protein encoding regions and a 3'-terminator region wherein said protein encoding regions are separated from each other by a DNA sequence coding for a linker propeptide, said propeptide providing a cleavage site whereby the expressed polyprotein is post-translationally processed into the component protein molecules. In particular, a signal sequence is also included such that the post-translational processing is effected in the secretory pathway of plants. Suitable linker sequences and DNA constructs for use in the method are also described.

## FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

							••
AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal .
ΑU	Australia	GA	Gabon -	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan ·		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		